**From:** Mike Searcy
**To:** Microsoft ATR
**Date:** 1/28/02 6:54pm
**Subject:** Microsoft Settlement

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Microsoft has lost focus on the best interests of consumers. The company now places its own ends above those of the consumer. With some companies, this is often understandable and acceptable. However, Microsoft, as ruled by the court, monopolizes an integral component of the computing industry, an industry that has become a primary driving force in the national economy. Consequently, until Microsoft's monopoly is either no longer in place or is no longer viable, the interests of the consumer public must take precedent, and it is up to the government, as representatives of the people, to ensure that the best interests of consumers are pursued. And, while the current settlement agreement between the Department of Justice, nine state Attorneys General, and the Microsoft Corporation, does take some significant strides, it contains multiple loopholes that would cause little to no adjustment in the tactics of Microsoft, a company that has been proven to abuse the monopoly it holds and has been seen to exploit such ambiguities often with brazen disregard for the intent of the agreement in which they reside. One significant loophole, the failure to adequately define what is and what is not an operating system, is the focus of this letter.

*Computing and Commodities*

Commodities. They are the foundation of the computing industry. However, based on context, they can often go by other names such as objects, standards, and libraries. Simply put, commodoties create an environment in which something can be reused multiple times and interchanged easily. They are the cornerstone of the success of the IBM PC, the World Wide Web, object-oriented programming, and grid computing. They enable competition and promote innovation, often at amazing speed. They form the basis for the goal of permitting any device to work with any data at any time at any location and the hope of writing a program one time and have it run anywhere and on any device.

When an individual goes out to purchase a personal computer, that person can choose from multiple PC vendors including Dell, Compaq, IBM, Hewlett-Packard, and Sony, to name a representative few. More often than not, he or she does not have to worry about whether or not the printer they purchased or the scanner they already own will work with the new PC in which they are investing. That is because the PCs from all of these manufacturers are based on a common, open architecture. The open architecture of these machines "commodotizes" the machine itself, allowing them to be interchanged easily. This allows for a large degree of competition between the vendors, lowered prices for consumers, and expedited innovation. In fact, according to the Department of Commerce1, PC prices fell 26 percent per year between 1995 and 1999 due to this rampant competition.

When that individual is examining those PCs, they can choose between processors from both Intel and AMD. Generally speaking, he or she does not have to worry about whether or not the spreadsheet program they purchased or the service provider they are using to access the Internet supports the processor they are

examining, as long as the Windows operating system supports it. In this case, the Windows operating system "commodotizes" the processor. Once again, the consumer benefits from intense competition between the processor companies yielding lower prices and greater innovation. Processors run faster and cheaper now than ever before, and the bar seems to be raised by this competition on almost a weekly basis.

When most people think of the Internet, they are actually thinking about only one component of the Internet, the World Wide Web. The success of the web is based on universal standards for the delivery and access of information. These standards "commodotize" the sender and receiver of that information. If the standards are followed, the end user, the consumer, does not have to worry if the server he or she is accessing is running Microsoft Internet Information Server (IIS), Netscape Enterprise Server, Lotus Domino, IBM WebSphere, or Apache. The standards "commodotize" the web server. This enables significant competition in the web server space, allowing the buyer, the presenter of the data, to choose from any number of servers. And, thanks to this "commodotization", the growth of the Internet, in terms of individuals accessing it since the inception of the web, has increased faster than any other medium preceding it, truly yielding immense consumer benefit.

The PC Operating System Commodity

Following the same logic, there is no reason that consumers cannot realize the same degree of consumer benefit and innovation from competition in the PC operating system market. The PC OS can be "commodotized" in the same way as the open PC hardware architecture, the PC processors, and the web servers mentioned above, yielding the same benefit to consumers and accelerating innovation. The methodology for sending data to and from a PC OS can be standardized following the same patterns as those detailed in the examples. When a consumer wants to run an application such as a word processor, speadsheet, or personal finance manager, he or she should not need to be concerned about the underlying operating system any more than he or she is concerned about the brand of the underlying PC or processor. It is an unnecessary level of complexity. This approach does not preclude competition in the PC OS space any more than it does in the PC, processor, and web server markets mentioned in the examples. In fact, it promotes it.

However, while such "commodotization" of the PC OS yields the greatest consumer benefit in lowered prices, increased competition, and accelerated innovation, it does not allow Microsoft to retain the monopoly grasp on that market that it currently holds and the resultant high profit margins. Consequently, rather than working in pursuit of this goal on behalf of consumers, Microsoft continually works in opposition of it actually working to undermine it, leveraging its monopoly and using tactics such as "application integration" to thwart this goal resulting in reduced consumer benefit, slowed innovation, and maintainence of artificially high prices.

Achieving PC OS "commodization" is pursued in two different ways: (1) the development of middleware and (2) the restriction of what is and what is not a component of the operating system. Middleware is software that sits between the application and the operting system. Software developers write their applications to the middleware rather than to a particular OS. This allows an application to be written a single time and run on any operating system supported by the middleware. However, as the advantage of middleware is to allow portability of applications across operating systems, it is imperative that the middleware be separate from the OS. Examples of middleware are Java and the Internet browser. Applications written in Java or to the browser, should be accessible on multiple operating systems without needing rewrites. However, as mentioned, such an approach, while benefiting consumers and application developers, does not benefit Microsoft. Consequently, Microsoft has strived to undermine the former and control the latter. Bill Gates, himself, realizes the benefits of middleware and articulates the intent of Microsoft to undermine it when he states in an email in January 1997, the following in regards to Java support in Windows.

"To avoid middleware taking over an operating system you have to make sure the integrated services are different from the middleware - otherwise the middleware approach has no disadvantages and it wins. I think the path we were going down of building on [Java's Abstract Window Toolkit (AWT)] was a sure disaster - it was creating a situation where pure 100% Java applications would look just as good as pure Windows applications which we have to avoid."

So, while pure Java applications looking as good as pure Windows applications would be a boon to consumers, it was undermined by Microsoft to protect its monopoly. An internet browser that could run on any operating system would present a universal platform for application development and a universal "client" for the consumer. However, such a universal client would undermine the Windows monopoly. Whereas Microsoft could have adjusted the OS to utilize the universal client, maintaining a separate browser client that could be ported to multiple operating systems, Microsoft chose instead to modify the browser client to accomodate the OS, thus eliminating the universal promise of the browser and destroying the resultant consumer benefit it would bring. These tactics could only be successful in an environment where there is no competition for the OS. Otherwise, consumers would flock to the OS that benefits them the most. In today's environment, Microsoft decides what is and what is not beneficial to the consumer. The consumer has no choice.

Inter Alia, Among Other Things

The current settlement agreement concentrates on addressing the middleware issue. However, it avoids addressing the second requirement of reaching the "commoditized" OS, a situation that is exploited by Microsoft in an increasingly frequent manner showing no indication of abating. To reach the goal of the

"commoditized" OS, a strict definition is needed of what is and what is not part of the operating system. Without such a definition, with its monopoly in place, Microsoft can continually "integrate" what is generally deemed as application software into the operating system in the same manner they have done with the browser. Two words in the text of the settlement agreement permit this tactic of Microsoft to continue unabated to the detriment of consumers.

"Inter Alia". They are found in the definitions section of the agreement within the definition of an "Operating System" (Section VI, Paragraph P.). With these two words in place, Microsoft can "integrate" anything and everything it sees fit into the operating system. This is easily seen in the latest iteration of its Windows operating system, Windows XP, where Microsoft has "integrated" its version of media "application" software into the OS. While there are benefits of integration, they are shortsighted and self-serving and do not present the greatest benefit to consumers. For instance, a manufacturer could produce a part that works specifically on a 2002 Ford Thunderbird. The benefit is that the part works wonderfully on that one car, as it is custom-made for that vehicle. However, how much better off is the consumer if the part is made to work on 50 different vehicles as opposed to the one? Immensely. Integrating application code into the OS is no different and yields the same results. Consumers benefit only in the short term and only as long as they continue to use the one OS to which the application code has been welded. Is the integration necessary? Not at all. Is it self-serving to the OS owner? Most definitely. Is it in the best interests of consumers? Not a chance.

Not only is the integration unwise from a usability perspective, it also leads to higher prices. How much cheaper can a single part be mass-produced for 50 different vehicles as opposed to a custom part for each one? The custom, integrated part is always more expensive. However, in this case, the consumer is blissfully ignorant of these unnecessarily higher prices for no other reason than we are all driving Thunderbirds, and the excessively high price of the part is "integrated" in the cost of the overall car.

To date, the measuring stick for allowing Microsoft to integrate code into its OS is whether or not the integration benefits consumers. This is the wrong approach. As we have seen, there will always be an argument for how the integration benefits the consumer. However, the question should be, "Of all of the options available, does the integration option present the best option for consumers?" Using this question as a guide, forced integration into an OS will rarely, if ever, be the best option for consumers.

With the above in mind, a specific definition of a PC operating system is necessary. I am not presumptuous enough to believe that I am capable of providing such a definition. However, I would envision that a group of experts taken from multiple areas of the industry could generate such a definition given the task. Undoubtedly, such a definition would require

modifications to Microsoft's existing operating systems or could be enforced for all future versions. However, having such a definition in place, along with the allowance of middleware, could open the door wide for true competition in the PC OS space while setting the foundation for immense, long-term consumer benefit, benefits that will easily fall by the wayside without it.

Regards,
Michael P. Searcy
Tampa, FL

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